

CHAPTER III

INDIAN COUNCIL OF AGRICULTURAL RESEARCH

Performance Audit of Agricultural Extension Activities in Indian Council of Agricultural Research

Highlights

Krishi Vigyan Kendras/ Zonal Coordinating Units

- Eligibility criteria for possession of minimum cultivable land were not observed in establishment of 50 KVKs (28 *per cent*). Most of the NGO KVKs (99 *per cent*) were yet to mortgage their land to ICAR. Further, improper site selection resulted in subsequent requests for change of selected sites and delay in conducting activities.

[Para 3.6.2.1(b,c,d)]

- 117 KVKs (65 *per cent*) did not assess location specific training needs based on interaction with farmers and 53 *per cent* of the KVKs did not conduct training impact assessment. Shortfall in training courses for practising farmers, rural youth and extension functionaries was observed in 121 KVKs.

[Para 3.6.2.3(b)]

- 94 KVKs (52 *per cent*) were still demonstrating older crop varieties released between 1948 and 1997 in Frontline Demonstrations. Average shortfall of 69 *per cent* was observed in 41 *per cent* of KVKs.

[Para 3.6.2.3 (c)]

- 131 KVKs (73 *per cent*) did not conduct adequate number of on-farm testing.

[Para 3.6.2.3 (d)]

- Inadmissible expenditure of Rs.5.70 crore was incurred by 123 KVKs on account of payment of salaries in higher pay scales and deployment of excess manpower.

[Para 3.6.2.4]

- 44 KVKs (39 *per cent*) out of 114 established prior to the X plan were yet to fully establish mandatory infrastructural facilities. Further, infrastructure already constructed at a cost of Rs.8.15 crore remained unutilised in 46 KVKs. e-Linkage facility approved at a cost of Rs.41.02 crore for 200 KVKs during the X plan was yet to be established as of January 2008.

[Para 3.6.2.2]

- **Coordination and monitoring of KVK activities by ICAR, ZCUs and KVKs were inadequate and needed to be strengthened. Shortfalls were observed in conducting meetings of monitoring bodies like Regional Committees and Scientific Advisory Committees.**

[Para 3.6.2.6]

National Research Centre for Women in Agriculture, Bhubaneswar

- **NRCWA undertook only three activities limited to in and around Orissa only, out of 10 activities envisaged in the X plan.**

[Para 3.6.3.1]

- **NRCWA was yet to create a database on gender specific information for all the states for utilisation by researchers and policy makers for planning gender issues.**

[Para 3.6.3.2]

- **NRCWA developed only one technology for reducing drudgery and increasing the efficiency of farm women. Further, it did not transfer 11 other technologies developed as of March 2007.**

[Para 3.6.3.6]

- **Partial/non-achievement of objectives, inadequate impact assessment/ follow up action was observed in 17 out of 26 projects despite an expenditure of Rs.8.08 crore.**

[Para 3.6.3.3]

- **Contribution of research papers and publications was not commensurate with the number of projects undertaken by the scientists.**

[Para 3.6.3.5]

Agricultural Produce Cess Fund projects and Institute-Village Linkage Programme

- **Outcomes of the six projects undertaken under AP Cess Fund were yet to reach the end users despite an expenditure of Rs.79.82 lakh.**

[Para 3.6.4]

- **IVLP centres did not effectively address the identified problems of the farming communities in the selected agro-ecosystems and farming systems, despite an expenditure of Rs.1.92 crore.**

[Para 3.6.5]

Summary of Recommendations

- *ICAR should ensure that eligibility criteria like proper site selection, possession of minimum cultivable land and mortgage of land to ICAR are observed before sanction of a KVK.*
- *ICAR should take adequate measures to ensure that all mandatory and other infrastructure facilities are constructed timely. It should also ensure proper monitoring and utilisation of the created infrastructure by the KVKs.*
- *ICAR should strengthen its monitoring mechanism to ensure effective training need assessment, implementation and impact assessment of training courses. Training courses for rural youth should be oriented to ensure higher rate of self employment.*
- *ICAR should formulate a mechanism to ensure demonstration of only newly released varieties in the farmers' fields. It should ensure reduction in cost of cultivation, enhancement in productivity and higher rate of adoption of the demonstrated varieties by the farmers. It should develop a mechanism to assess the rate of adoption of demonstrated varieties by farmers.*
- *ICAR should formulate guidelines in respect of administrative and financial procedures for NGO KVKs.*
- *ICAR should ensure better functioning of ATICs to provide service to farmers and other end users through a single- window supporting delivery system.*
- *ICAR should strengthen the functioning of NRCWA to conduct research, develop and transfer technologies for women in agriculture at a national level. Coordination with national and international organisations should also be ensured for testing appropriateness of technology for women in agriculture.*
- *ICAR should ensure achievement of objectives and utilisation of results appropriately for extension related schemes undertaken for various Ministries/Departments.*

3.1 Introduction

Indian Council of Agricultural Research (ICAR), a society under the Department of Agricultural Research and Education (DARE), is the apex organisation which

conducts research, acts as a repository of information and provides consultancy on agriculture and related subjects. The Agricultural Extension Division (AED), one of the eight divisions of ICAR, has the responsibility of testing and transferring agricultural technologies from research institutes to farmers' fields, bridging the gap between production and productivity and increasing self employment opportunities among the farming communities. Its major activities include assessment, refinement and demonstration of technologies/products to farmers across the country.

AED is headed by a Deputy Director General (DDG) and it functions through a network of various institutes/schemes as described below:

- Krishi Vigyan Kendra (KVK) is an innovative science-based institution designed to conduct training, frontline demonstrations and on-farm testing for farmers and other stakeholders. A KVK is established under an organisation known as the host institute. For monitoring extension activities of the KVKs at the zonal level, eight Zonal Coordinating Units¹ (ZCUs) located at eight different agro-ecological zones of the country have been set up under AED.
- National Research Centre for Women in Agriculture (NRCWA), Bhubaneswar is a national level Institute for research, training and extension activities on gender issues in agriculture and allied fields.
- 44 Agricultural Technology Information Centres (ATICs), established at different institutes of ICAR and State Agricultural Universities (SAUs), provide a single window support system for technology products, diagnostic services and technology information to the farmers and other end users.
- 70 Institution-Village Linkage Programmes (IVLPs) for technology assessment and refinement were implemented during the X plan. The concept of IVLPs was based on participatory mode ensuring greater scientists-farmers linkages in a bottom up approach. They ensured access to agricultural technologies generated by the institutes/agricultural research system in the country to the entire farming community in a village/ a cluster of villages.

The total expenditure of AED during the X plan (2002-03 to 2006-07) was Rs.778.76 crore for KVKs, Rs.9.93 crore for NRCWA, Rs.24.55 crore for 70 IVLPs and Rs.16.53 crore for establishment of 44 ATICs.

¹ Zone I (Punjab, Haryana, Delhi, Himachal Pradesh, Jammu & Kashmir); Zone II (West Bengal, Bihar, Jharkhand, Andaman & Nicobar Islands); Zone III (eight North Eastern States); Zone IV (Uttarakhand, Uttar Pradesh); Zone V (Andhra Pradesh, Maharashtra); Zone VI (Gujarat, Rajasthan); Zone VII (Chattisgarh, Madhya Pradesh, Orissa); Zone VIII (Goa, Karnataka, Kerala, Tamil Nadu, Lakshadweep).

3.2 Scope of Audit

Performance audit of extension activities of ICAR was undertaken in May to November 2007 to assess the achievement of objectives and efficiency of implementation of the extension activities during the X plan. Out of all the units of AED, audit sampled all the eight ZCUs, 180² out of 550 KVKs, 13 out of 44 ATICs and 21 out of 70 IVLPs (**Annexure 1**) for detailed review. Sample selection was done on the basis of risk factors like significance of activity, monetary value, location and status of KVKs. For the sake of completeness, activities relating to period prior to the X plan were also reviewed, wherever pertinent and relevant.

3.3 Audit Objectives

The following objectives were set to assess the performance of the agricultural extension activities of ICAR:

- (a) Establishment and fulfilment of role of KVKs in identifying location specific agricultural technologies and demonstrating them to the farmers/ other end users; training of farmers/ farm women/rural youth and extension personnel; evolving institutional modules for effective transfer of technologies and providing important feed-back to agricultural scientists and policy makers for refinement of technology;
- (b) Existence of monitoring and review mechanism of all the extension activities at ICAR, zonal and KVK level and their role in guidance, supervision and human resource development functions of KVKs;
- (c) Achievements of NRCWA in identifying gender issues and testing appropriateness of available farm technologies/ programmes/ policies with womens' perspective for promoting gender mainstreaming in research and extension for empowerment of farm women and capacity building of scientists, planners and policy makers to respond to the needs of the farm women;
- (d) Achievement of objectives of ATICs in providing a single-window delivery supporting system for the availability of technology products, diagnostic services and technology information to farmers and other end users;
- (e) Achievement of objectives of schemes funded by Agricultural Produce Cess Fund and IVLPs implemented in ICAR institutes and State Agricultural Universities (SAUs), in assessing and refining the innovative technologies and the extent of benefit to the end users;

² Out of 180 KVKs, 13 were of ICAR, 97 of SAUs, 53 of NGOs, 8 of State Governments and 9 others.

- (f) Adequate utilisation of infrastructure facilities like land, buildings, equipments and manpower by the KVKs, ATICs and NRCWA; and
- (g) Maintenance and documentation of basic records to ensure the reliability of data and information presented in various kinds of reports and publications.

3.4 Audit Criteria

The following audit criteria were used to assess the performance of agricultural extension activities of ICAR:

- (a) Basic eligibility norms for establishment of KVKs and development of adequate infrastructure facilities and utilisation thereof;
- (b) Targets of KVKs in technical activities like training, frontline demonstrations and on-farm testing;
- (c) Demonstration of location specific latest crop varieties/ technologies through frontline demonstrations and on-farm trials/ testing;
- (d) Periodical monitoring, evaluation and action taken reports of activities of KVKs by ICAR, ZCUs and other monitoring bodies;
- (e) In NRCWA, existence of system for formulating, monitoring and review of research projects, technology development & transfer and undertaking of adequate number of sponsored, consultancy & collaborative projects;
- (f) Rendering appropriate services, products and technologies to farming community by ATICs and existence of system for monitoring and assessment of ATICs activities by host institute; and
- (g) In IVLPs and AP Cess fund projects, existence of system for formulation, implementation and monitoring of the projects, identification of problems and appropriate technology interventions and utilisation of outcomes of the projects.

3.5 Audit Methodology

The audit plan including the audit scope, objectives and audit criteria was discussed with ICAR in the Entry Conference held on 17 May 2007. Project files, annual progress reports, reports of monitoring bodies of the selected ZCUs, KVKs, ATICs and IVLPs were examined and discussions were held with officials at various levels. The audit teams visited the selected ZCUs, KVKs, ATICs and field sites. Audit findings were discussed with ICAR management in the Exit Conference held on 31 January 2008.

3.5.1 Acknowledgement

The co-operation of ICAR and its allied units during the entry conference, course of audit and exit conference was satisfactory and the same is acknowledged with thanks.

3.6 Audit Findings

3.6.1 Financial outlay

The total budget and expenditure of AED during the X plan for KVKs/ZCUs was Rs.848.48 crore and Rs.778.76 crore respectively. During the X plan, KVKs/ZCUs surrendered Rs.69.82 crore (8.23 *per cent*) to ICAR. The percentage of surrender was higher in the states of Chattisgarh, Madhya Pradesh and Orissa in Zone VII (20.56 *per cent*) and Uttar Pradesh and Uttarakhand in Zone IV (12.37 *per cent*).

In addition, AED also implemented ad-hoc research schemes out of Agricultural Produce Cess Fund (Rs.5.00 crore), 70 IVLPs (Rs.24.55 crore) and established 44 ATICs (Rs.16.53 crore) during the X plan.

ICAR accepted the facts in January 2008 and stated that the sanctioned budget could not be utilised due to non-filling up of vacant posts and delay in completion of codal formalities for construction of works in KVKs. ICAR also accepted that unspent balance of Rs.9.50 crore lying with the various host institutes of KVKs of Zone III upto the year 2006-07 has been recovered/adjusted during 2007-08. ICAR also assured that efforts would be intensified to improve its financial management.

3.6.2 Krishi Vigyan Kendras

Out of 550 established KVKs, 368 were under State Agricultural Universities (SAUs), 40 under ICAR Institutes, 89 under Non-Governmental Organisations (NGOs), 33 under State Governments and the remaining 20 were under other educational institutions/ organisations.

3.6.2.1 Establishment of Krishi Vigyan Kendras

(a) Target of establishment of KVKs

As per X plan document, ICAR was to establish one KVK in every district of the country during the X plan. By the end of the IX plan, the number of KVKs established was 273. Against a target of 316 KVKs to be established during the X plan, ICAR established 277 KVKs resulting in a shortfall of 12 *per cent*. As of

March 2007, KVKs have been established in 550 districts out of 589 districts in the country.

(b) Minimum cultivable land requirement

ICAR's guidelines stipulated that minimum 20 Hectares (ha.)⁽³⁾ (50 acres) and 15 ha. (37.5 acres) of cultivable land in plain and hill area respectively was required to be in possession of each KVK for purposes like infrastructure, instructional units, farm forestry and field crops to carry out their activities.

Audit, however, observed that out of 180 KVKs, 50 (27.77 per cent) did not possess the minimum required cultivable land. Out of these, 16 KVKs⁴ possessed less than 10 hectares of land. Further, ICAR did not have any mechanism to ensure that a KVK was in actual possession of requisite minimum 15/20 ha. of land. In the absence of the required land, mandatory activities like on-campus training/ demonstration, seed/ sapling production activities, demonstration on horticulture/ floriculture/ fisheries were not carried out sufficiently as discussed in the succeeding paragraphs.

ICAR stated in January 2008 that six KVKs⁵ were having 20 ha. of land and two KVKs namely Khagaria and Shimla had 14.80 ha. and 2.5 ha. (hilly terrain) of land respectively. The reply is not tenable as the records of the ZCUs and the information furnished by KVKs during the course of audit clearly indicated that these KVKs were having less than 15 ha./ 20 ha land. The reply also indicated that ICAR had no mechanism to ensure actual possession of the land by KVKs. Further, ICAR accepted that the remaining KVKs did not have minimum 20 ha. of required land and the same were established only on the recommendation of the site selection committee.

(c) Improper site selection

A site selection committee (committee) was to be constituted by ICAR for selection of site for KVKs and based on its recommendation/ report, KVKs were to be sanctioned by ICAR. The committee was required to ensure that the site of KVKs was cultivable and with all civic facilities.

Out of 180 KVKs test checked in audit, only 21 site selection reports of KVKs established during the X plan and 5 KVKs established during the IX plan were

³ 2.5 acres is equal to 1 hectare.

⁴ 16 KVKs namely Shimla (3 ha.), Kullu (4.85 ha.), Kangra (8.64 ha.), Faridabad (9 ha.), Bhatinda (9.86 ha.), Dhanbad (2.50 ha.), Khagaria (3 ha.), Vaishali (4 ha.), East Sikkim (6.09 ha.), West Sikkim (6.95 ha.), Tirap (7 ha.), Kolar (1 ha.), Salem (9.95 ha.), Khurda (5 ha.), Lohardaga (8 ha.), Hazaribagh (10 ha.).

⁵ KVKs namely Dimapur, Khurda, Raigarah, Raipur, Chitradurga, Kolar.

produced to Audit. Of the balance 154, ICAR stated in January 2008 that the site selection committee reports of 84 KVKs were not traceable. This indicated that the system of documentation of important records was inadequate and needed strengthening.

Further, Audit observed that ICAR did not select appropriate sites as per ICAR guidelines in the establishment of six KVKs, thus necessitating requests for immediate change of sites by the KVKs, as discussed below:

- An NGO KVK was sanctioned at Bari Paikant, district Khagaria (Bihar) in the year 2004 although the host institute had only 3 ha. of land in its possession. In 2005-06, ICAR released Rs.13 lakh to the KVK for construction of Administrative-cum-laboratory building in the KVK land. However, without the approval of ICAR, the host institute constructed the building at its own land at Chandra Nagar, which was 40 kms away from the KVK land and informed ICAR in April 2006 that the approved site faced water-logging problems during rainy season. In response, ICAR conveyed its decision in July 2007, that at least 8 to 10 acre of land should be acquired by the host institute at Chandra Nagar, where the building was being constructed to facilitate the functioning of KVK from Chandra Nagar and that the existing farm at Bari Paikant might be used for seed production. However, the host institute acquired only 0.73 ha. of land at the changed site. Thus, the KVK could not carry out its activities in either of the sites, despite funding of Rs.86.50 lakh during the years 2003-04 to 2006-07.
- KVK, Ujwa (Delhi) established in 1995, could not develop its mandatory infrastructure facilities despite 12 years of its existence. As the Ujwa village where the KVK was situated was under the Mini Master Plan of Integrated Development of Rural Delhi, the Delhi Development Authority (DDA) did not permit the construction of KVK's buildings. Consequently, the KVK could not construct its mandatory infrastructure and carry out its mandatory technical activities despite funding of Rs.33.95 lakh during the X plan. ICAR accepted the facts and stated in January 2008 that the matter has been taken up with DDA for establishment of the infrastructure.
- Land selected for KVK, Vizianagaram (Andhra Pradesh) established in 1983, was situated at a remote place and was not accessible by more than 95 *per cent* of the villagers of Vizianagaram district. The ICAR review team visited the KVK during 1998 and recommended change of site. Despite this, no action had been taken for change of the present site till January 2008 and ICAR continued to fund the KVK. A sum of Rs.1.79 crore was released to the KVK during the X plan. Similarly, KVK, Latur (Maharashtra) established in May 2005 under the host institute Manjara Charitable Trust, requested ICAR in March 2006 for change of the site, as the site was not easily

accessible by the public and it also did not have adequate water resources. However, approval of ICAR for the change of site was pending (September 2007). As a result, KVK Latur could not conduct any technical activities except 21 off campus training courses, despite sanction of Rs.32 lakh during 2005-07.

- ICAR stated in January 2008 that the change of site of KVK, Latur was under examination and the KVK had conducted 75 training programmes covering 1842 beneficiaries during the year 2006-07. The reply is not tenable as the KVK conducted 21 off-campus training courses for 538 practising farmers/ farm women only. ICAR further stated that change of site of KVK, Vizianagaram might not be possible as efforts made by the host institute to obtain a suitable land could not succeed. The reply of ICAR indicated that the land selected for the KVKs was unsuitable for their activities.
- KVK, Malda (West Bengal) established in 2004 changed its site from Manikchawk to BS Farm, Ratau on the approval of ICAR in June 2005. Similarly, KVK, West Singhbhum (Jharkhand) established in 1983 changed its site from Putida to Jaganathpur, after obtaining the approval of ICAR in March 1986.

Thus, due to improper selection of the sites of the above six KVKs, the mandatory infrastructure facilities could not be established and activities could not be undertaken, despite funding of Rs.3.36 crore during the X plan.

(d) Memorandum of Understanding

As per ICAR guidelines, a Memorandum of Understanding (MoU) was to be signed between ICAR and the host institute of KVKs (other than ICAR) in a format prescribed by ICAR, for proper implementation of the project. According to MoU, the host institute was required to, *inter alia*, mortgage the KVK land to ICAR, and submit the mortgage paper to ICAR, before release of funds for development of infrastructure facilities. In this regard, Audit observed that the mortgage clause was not incorporated in the MoU of 145 out of 147 KVKs (99 *per cent*). Consequently, the land of these KVKs (SAUs/ NGOs/ Others) was not mortgaged to ICAR.

ICAR stated in January 2008 that a decision to obtain mortgage from NGO KVKs was taken in January 2005 and accordingly this clause had been included in the MoU of the NGO KVKs established after January 2005. The reply of ICAR is not tenable as the approved format of MoU published in its guidelines of January 1999 clearly stated that the land of KVKs (except ICAR based KVKs) was to be mortgaged to ICAR before the release of grants.

Thus, MoUs signed with KVKs were incomplete due to which ICAR could not have any legal rights/hold on KVK properties created out of its funds.

(e) Indemnity Bond

In accordance with the decision taken by ICAR in May 2003, NGO KVKs were required to fill an indemnity bond in addition to mortgage deed.

Audit observed that 51 out of 53 (96 *per cent*) NGO KVKs had not furnished the indemnity bond to ICAR. As a result, ICAR would not be in a position to recover any loss in the event of termination of MoU due to any dispute or violation of the terms and conditions of the MoU.

ICAR stated in January 2008 that the procedure of submission of indemnity bond was introduced in the year 2003 in respect of NGO KVKs and that the bond had been obtained from all the NGO KVKs established thereafter. The reply may be viewed in the light of the fact that obtaining indemnity bonds from all NGO KVKs is essential to safeguard the assets created by ICAR.

Thus, ICAR established KVKs without fulfilling the basic eligibility criteria. It also did not ensure mortgage of KVK land and furnishing of indemnity bond by KVKs to safeguard government assets and property. As a result, host institutes were utilising KVK infrastructure for other unrelated functions like running colleges as discussed in paragraph 3.6.2.2 (b).

Recommendation

ICAR should ensure that eligibility criteria like proper site selection, possession of minimum cultivable land and mortgage of land to ICAR are observed before sanctioning of a KVK.

3.6.2.2 Development and utilisation of infrastructure facilities

Each KVK was required to establish infrastructure facilities⁶ within five years of its establishment with funds sanctioned by ICAR. This apart, ICAR had also provided Rs.41.02 crore for establishment of e-linkage to facilitate global access of information in 200 KVKs during the X plan. In this regard, the following observations are made:

(a) Non-establishment/delay/non-utilisation of infrastructure facilities

As of September 2007, 114 KVKs out of 180 were established prior to X plan period. However, of these, in 44 KVKs (38.6 *per cent*), the infrastructure facilities

⁶ Administrative-cum-laboratory building (plinth area of 550 sqm.), one Trainees Hostel (plinth area of 305 sqm.), six residential apartments (plinth area of 400 sqm. each) and two demonstrations units (160 sqm. each).

were yet to be fully established. Further, there were inordinate delays of upto 15 years in the establishment of facilities in 37 KVKs, besides non-utilisation of infrastructure facilities in 46 out of 70 KVKs (52.85 per cent) as given below:

▪ **Farmers' Hostel**

As of December 2007, 21 KVKs out of 114 were yet to construct their farmers' hostel. 37 KVKs constructed their farmers' hostel with an inordinate delay of one year to 15 years. Further, in 27 KVKs, farmers' hostel established at a total cost of Rs.3.70 crore⁷ were not utilised for the intended purpose and the same was being utilised for storage of seeds and grain. Consequently, these KVKs could not conduct long term vocational training courses for farmers and rural youth.

▪ **Staff Quarters**

As of December 2007, 40 KVKs out of 114 were yet to construct their staff quarters. Out of remaining 74 KVKs, in 23 KVKs, staff quarters constructed at a cost of Rs.4.45 crore⁸ were lying vacant. Further, 26 KVKs had constructed their staff quarters after an inordinate delay of two to 10 years.

Thus, expenditure of Rs.8.15 crore incurred for farmers' hostels and staff quarters in 46 KVKs, which were not being utilised, was unfruitful.

ICAR accepted the facts of non-establishment of facilities in January 2008 and assured that complete infrastructure would be established in all the KVKs by end of the XI plan.

(b) Misutilisation of infrastructure facilities

Two KVKs were found to be utilising the infrastructure facilities for other unrelated purposes as discussed below:

- KVK, Parbhani (Maharashtra) was using the administrative building for carrying out activities of Rajiv Gandhi Agricultural College run by the host institute, Jeevan Jyot Charitable Trust, Parbhani. The host institute also constructed two more floors on the administrative building of KVK without permission of ICAR. The farmers' hostel of KVK was being utilised as students' hostel of the college. A committee constituted by ICAR in October 2005 confirmed the facts and recommended to stop the grant and shift the location of the KVK. However, ICAR continued to release grants to the KVK and sanctioned Rs.20.35 lakh during 2006-07.
- KVK, Nanded (Maharashtra) was utilising its administrative building (Rs.31.53 lakh) for running the Mahatma Gandhi College of Agricultural Bio-Technology of the host organisation. It also constructed three floors against

⁷ the cost of farmers' hostels of four KVKs was not available.

⁸ cost of staff quarters in four KVKs was not available.

the sanctioned two floors at the hostel building (Rs.29.07 lakh) of the KVK in 2005-06.

As a result, these KVKs could not conduct long-term/vocational training courses for extension functionaries, rural youth and practising farmers.

ICAR, while accepting the facts, stated in January 2008 that the colleges would be shifted and the KVKs infrastructure would be utilised for KVK activities only.



(c) Non establishment of e-Linkage facility (e-Extension) in KVKs

In order to strengthen the information and communication technology, enable KVKs to have global access to information and act as gateway for availability of information at the local level, ICAR provided Rs.41.02 crore to 200 KVKs during the X plan. However, it was observed that as of January 2008, this facility was yet to be established in any of the KVKs.

ICAR stated in January 2008 that the work was assigned to ERNET India and Rs.15 lakh was released in March 2007. The reply indicates that ICAR did not initiate any action till March 2007, i.e the end of the X plan. Though the work was to be completed by March 2008, the zonal coordinators, who were required to monitor all activities of KVKs, did not have any information on the status of the project as of January 2008.

Recommendation

ICAR should take adequate measures to ensure that all mandatory and other infrastructure facilities are constructed timely. It should also ensure proper monitoring and utilisation of the created infrastructure by the KVKs.

3.6.2.3 Technical activities

The mandate of KVKs is to:

- organise training to update the extension personnel with emerging advances in agricultural research on regular basis and organise short and long-term

vocational courses in agriculture and allied vocations for the farmers and rural youths with emphasis on 'learning by doing' for higher production of farms and generating self-employment,

- organise frontline demonstration on various crops to generate production data and feedback information, and
- conduct 'on-farm testing' for identifying technologies in terms of location specific sustainable land use systems.

Audit findings, as a result of scrutiny of records of 180 KVKs selected from all the eight zones, are discussed in the succeeding paragraphs:

(a) Non-maintenance of district profile

As per ICAR guidelines, KVKs were required to work as 'think tank' for district planning based on agro-climatic and socio-economic conditions. Hence, it was necessary for each KVK to maintain proper records of its district for information like total area, total area of cultivable land, total numbers of blocks/ villages, population of farmers (small, marginal and large)/livestock and update the same periodically. This would facilitate the KVKs in implementing their activities across the entire district in a phased manner.

Audit observed that although none of the KVKs test checked had maintained proper records for such information, the KVKs obtained the required information from various sources and furnished the same at the instance of Audit.

(b) Training programmes

KVKs were required to organise short/long term vocational training courses in agricultural and allied areas for the farmers, farm women, rural youth for higher productivity and generation of self employment. They were also to conduct training courses for extension personnel for updating their knowledge with emerging advances in agricultural research. Audit observed the following:

(i) Planning

In order to ensure relevance of training, KVKs were required to identify need of location specific technology by using Participatory Rural Appraisal (PRA) tools like conducting scientific surveys, group interviews and personal visits.

Audit observed that except KVKs of zones I, III and VIII, the other zones did not have any document to show that need for trainings, particularly for rural youth for self employment and income generation, were assessed by interaction with the farmers and the rural youth by using PRA tools. Therefore, it could not be

ascertained whether the activities planned by the 117 out of 180 KVKs (65 per cent) of the five zones were according to the location specific needs of the farmers.

ICAR stated in January 2008 that the records of PRAs, field visits and group discussions were available with the KVKs. However, a perusal of the reply revealed that the copies of interview schedule and questionnaire enclosed pertained to the year 1998. Thus, it is evident that KVKs did not conduct any such surveys to ascertain the need of the trainings of the farmers during the period under audit. In the absence of any effective interaction with farmers and the rural youth for training need assessment, the training imparted in KVKs may not have the intended impact. Further, ICAR needs to put in place an effective monitoring system to ensure regular training need assessment by KVKs.

(ii) Implementation

Each KVK was required to train at least 2500 practising farmers/ rural youth and 200 extension functionaries per year. Scrutiny of related records revealed the following:

- Shortfall of 49.25 per cent was observed in 121 (67 per cent) out of 180 KVKs in training courses conducted for practising farmers/ rural youth. Only 5.93 lakh practising farmers/ rural youths were trained in these KVKs against a total requirement of 11.70 lakh during the X plan. Shortfall was significant in the states of Uttar Pradesh (Zone IV) and Chattisgarh, Madhya Pradesh and Orissa (Zone VII).
- Shortfall of 54.31 per cent was observed in 109 (60.55 per cent) out of 180 KVKs in training courses conducted for extension personnel. Against a total of 79,600 extension personnel, only 36,369 were trained in these KVKs during the X plan. Burdhan (West Bengal), Latur (Maharashtra) and Raigarh (Orissa) did not conduct any training course for extension functionaries during the X plan. The extent of under achievement was significant in the states of Chattisgarh, Madhya Pradesh and Orissa (Zone VII), Uttar Pradesh (Zone IV) and Gujarat, Rajasthan (Zone VI).
- 44 out of 180 KVKs (24.44 per cent) did not conduct vocational training courses for rural youth during the X plan. These KVKs were mainly in the states of Madhya Pradesh, Chattisgarh and Orissa (Zone VII), Uttar Pradesh (Zone IV) and Bihar, Chattisgarh and West Bengal of Zone II. Against a total of 83,000 rural youth trained on different disciplines in 100 KVKs of zones I, III, IV and VII during 2002-2006, the number of rural youth self-employed was only 284 (0.34 per cent) as per the annual reports of the ZCUs. Thus, the objective of self-employment of rural youth was not achieved fully.

ICAR stated in January 2008, that the KVKs provided selected success stories rather than giving total number of self-employed youths and that most of the trainees trained were from farm families and the knowledge and skills gained by them were utilised in their own farming situations.

The reply may be viewed in light of the fact that KVKs did not obtain systematic feedback to assess the effectiveness of the training imparted as discussed in detail in the succeeding paragraph. Thus, training courses conducted by KVKs for practicing farmers, rural youth and extension functionaries were inadequate. The objectives of self employment and knowledge updation of end users with emerging advances in agricultural research and higher production on farms and generation of self employment, therefore, could not have been said to be fully achieved.

(iii) Evaluation and follow up action

KVKs were required to evaluate and take follow up action on the training courses to make further improvements and enhance their usefulness. This was to be done through questionnaires, interviews and interactions with the participants and ex-trainee meets. However, Audit observed that:

- 56 KVKs (31 *per cent*) did not conduct ex-trainees meetings which were required to be conducted once in a year for sharing of their experience/ constraints for updating the training courses during the X plan. Further, no experienced farmers had been identified as ‘Honorary Training Associates’ for attaching a small group of young farmers (three to five) at one time at his farm for special skilled training, by any KVK as stipulated in ICAR’s guidelines. While accepting that KVKs did not conduct ex-trainee meetings, ICAR stated in January 2008 that KVKs utilised the expertise of trained farmers as ‘Honorary Training Associates’. It however, stated that there was no documentation in this regard and assured that it would be done in future.
- Impact assessment of training courses which was necessary to assess the relevance of training courses and for further modifications, if necessary, was not conducted by 95 out of 180 KVKs (52.78 *per cent*).

Thus, KVKs did not make adequate efforts to evaluate and assess training courses conducted. As a result, Audit could not ascertain as to how KVKs ensured that suitable modifications in the training courses and methods were adopted, to keep pace with modern technology.

Recommendation

ICAR should strengthen its monitoring mechanism to ensure effective training need assessment, implementation and impact assessment of training courses. Training courses for rural youth should be oriented to ensure higher rate of self-employment.

(c) Frontline Demonstrations

Farmers' awareness of new crops and technologies was the first essential step towards their adoption. Accordingly, KVKs were required to conduct Frontline Demonstrations (FLD) to demonstrate the potential of newly released varieties/technologies for the first time on the farmer's fields and introduce the advantages of new variety/technology over traditional practices. The schemes of frontline demonstration of oilseeds, pulses and cotton were funded by the Ministry of Agriculture and for FLDs of other crops, ICAR had to meet the expenditure from its own budget. Scrutiny revealed the following:

(i) Shortfall in conducting Frontline Demonstrations

As per guidelines of ICAR, each KVK was required to conduct 150 FLDs on other than oilseeds, pulses and cotton per year. Average shortfall of 69 per cent was observed in 74 out of 180 KVKs (41.11 per cent) in conducting FLDs on crops other than oilseeds, pulses and cotton. Of this, six KVKs had not conducted any FLD during the X plan. The shortfall was significant in the states of Andhra Pradesh, Maharashtra of Zone V and the states of Tamil Nadu, Kerala and Karnataka in Zone VIII. Details are given in **Annexure 2**.

Six KVKs namely South Tripura (Tripura), Guna (Madhya Pradesh), Faridkot, Kapurthala (Punjab), Karnal (Haryana) and Latur (Maharashtra) did not conduct any FLDs on other than Oilseeds, Pulses and Cotton during the X plan.

(ii) Non dissemination of latest crop varieties released and technologies developed

In terms of ICAR guidelines for FLDs, only the latest varieties of crops/technologies were required to be demonstrated in FLDs. Although ICAR was collecting and compiling information relating to the latest crop varieties and technologies, the same was not being disseminated to KVKs for FLDs to be conducted for the benefit of the farming community. Consequently, 94 KVKs

(52.22 per cent) demonstrated old crop varieties released between 1948⁹ and 1997 and only few varieties released subsequently were demonstrated. Further, 31 KVKs, significantly in West Bengal, Bihar and Jharkhand (Zone II) did not have any record for the year of release of crop varieties demonstrated by them.

Thus, there was no mechanism in ICAR to ensure that the information on latest crop varieties released and technologies developed by ICAR and other organisations were disseminated to KVKs for conducting FLDs.

The reply of ICAR of January 2008 that the old varieties were being demonstrated due to certain reasons is not tenable since only newly released varieties were to be popularised as per the guidelines and recommendations of different workshops/meetings of the monitoring bodies held during the X plan.

(iii) Pre-requisite tests and close supervision not conducted

In terms of guidelines of FLDs, soil of the land for demonstrations was required to be tested for refinement of technologies and application of inputs to the crop varieties. Further, FLDs were to be closely supervised by the scientists of National Agricultural Research System (NARS). However, 88 KVKs (49 per cent) did not conduct any soil tests before conducting FLDs and 51 KVKs (28 per cent) did not conduct FLDs under close supervision of scientists of NARS. The shortfall was significant in states of Uttar Pradesh (Zone IV) and Bihar, Jharkhand & West Bengal (Zone II). As a result, these KVKs did not gain the expertise of the NARS scientists in modifying technologies for the farmers. Besides, in the absence of soil analysis and related parameters, the appropriateness of technologies demonstrated and intended benefits of FLDs conducted could not be ensured.

ICAR stated in January 2008 that KVKs of zones other than VI and VII were conducting soil testing before undertaking FLDs and that FLDs were supervised by scientists and zonal coordinators only. The reply is not tenable as 88 KVKs and 51 KVKs had already accepted (January 2008) not conducting of soil test and non-supervision of FLDs by the scientists of NARS respectively.

(iv) Insignificant benefit of demonstrated practices over prevailing traditional practices on crop varieties

The objective of FLDs was to increase the production of oilseeds and pulses to achieve self sufficiency. Further, report of ICAR/ZCU also revealed that by adopting judicious measures, the cost of cultivation for farmers could be reduced by 10 to 25 per cent. An analysis of FLDs on Oilseeds and Pulses revealed that

⁹ Variety released in 1948: KVK, Coimbatore, 1961: KVK Solan, 1976: KVK Gwalior, 1980: KVK Nalanda.

ICAR compared demonstrated practices with the prevailing traditional practices with criteria of production only and did not take into account the cost of cultivation. Taking into account the cost of cultivation, Audit observed that though the demonstrated methods resulted in substantial increase in yield per hectare, they also required application of critical inputs, the cost of which was much higher than that of prevailing traditional practices as shown in the table below:

TABLE I								
Name of the KVK	Crop/ Livestock	Local check			Demonstration			Increase in %, compared to Local check
		Yield (qtl./ha.)	Cost of Input (in Rs.)	Cost of cultivation (Rs./ qtl.)	Yield (qtl./ha.)	Cost of Input (in Rs.)	Cost of cultivation (Rs./ qtl.)	
Gwalior, Madhya Pradesh	Sesame (JTS-8)	7.1	40	5.63	11	630	57.27	917.23
Senapati, Manipur	Rapeseed (M-27)	7.25	240	33.1	9.95	2844	285.83	763.53
Kangra, Himachal Pradesh	Sesame (PB Til No.1)	2.65	170	64.2	3.85	1674	434.8	577.26
Ajmer, Rajasthan	Til (RT-125)	2.92	195	66.78	3.95	1324	335.2	401.95
Visakhapatnam Andhra Pradesh	Niger (KGN-2)	5.4	270	50.00	7.30	1555	213.01	326.03
Calicut, Kerala	Japanese Quail	213 eggs	2400	11.27	245 eggs	10266	41.9	271.78
Chitrakoot, Uttar Pradesh	Jowar (CSV-15)	17.25	200	11.6	20.1	657	32.67	181.64
Nalanda, Bihar	Red Gram (Bahar)	11	625	56.82	17.5	2685	153.43	170.03

(Source: Annual Reports of KVKs/ZCUs)

ICAR stated in January 2008 that demonstrated practices led to increased additional net return per ha. due to higher quality of seeds, fertilisers etc. The reply is to be viewed in the light of the fact that higher cost of critical inputs made the demonstrated technologies costlier for small and marginal farmers. Moreover, the increase in the cost of input per ha. was substantially higher, ranging from 170 per cent to 917 per cent.

Recommendation

ICAR should formulate a mechanism to ensure demonstration of only newly released varieties in the farmers' fields. It should ensure reduction in cost of cultivation, enhancement in productivity and higher rate of adoption of the demonstrated varieties by farmers. It should develop a mechanism to assess the rate of adoption of demonstrated varieties by farmers.

(d) On-farm Testing

The objective of on-farm testing (OFT) is to test developed crop technologies, identify constraints and formulate recommendations for extensive adoption by farmers in a defined study area. Scrutiny of related records of KVKs revealed that:

(i) As per recommendations of ICAR, each KVK was required to conduct minimum six OFTs per year i.e. at least one OFT by each Subject Matter Specialist.

However, it was observed that 131 KVKs (72.77 per cent) did not conduct the required number of OFTs and the shortfall was to the extent of 10 per cent to 93 per cent. The shortfall was significant in the states of Uttar Pradesh (Zone IV), Bihar, Jharkhand and West Bengal (Zone II) and southern states of Zone VIII. Further, 12 out of 180 (6.66 per cent) KVKs did not conduct any OFT during the X plan. It was seen that 68 KVKs, mainly of zones II and VII did not conduct any OFTs on the disciplines of agricultural engineering, animal science and home science. Consequently, identified problems in these disciplines could not be addressed adequately. The Quinquennial Review Team (QRT) had also observed in its report of February 2007 that the average number of OFTs conducted per KVK in all the eight zones ranged from 0.6 (Zone IV) to 3.2 (Zone VII), which was much below the recommended standard of minimum six OFTs per year.

In view of the above, the reply of ICAR in January 2008 that all 180 KVKs had conducted an average number of 13 OFTs per KVK per year was not tenable.

(ii) In 88 out of the 180 KVKs (49 per cent), no assessment was made for OFTs conducted. Consequently, no recommendations were made for the identified areas in the districts to solve the problems of farmers, thus defeating the purpose of OFTs. This was observed significantly in states of Punjab, Haryana & Himachal Pradesh (Zone I), Bihar, Jharkhand and West Bengal (Zone II) and Rajasthan & Gujarat (Zone VI). Further, ICAR had recommended in several annual workshops that OFTs being planned needed further modification and revision in the selected KVKs of zones II, IV, VI and VII.

ICAR stated in January 2008 that the modification/ revision was a continuous process and was being taken care of.

Thus, the objective of testing developed technologies, identifying constraints and formulating recommendations by conducting OFTs were not being achieved fully by KVKs.

Recommendation

ICAR should ensure proper training to extension functionaries for conducting OFTs so that recommendations are formulated for the identified problems and adopted on a large scale by the farmers.

3.6.2.4 Manpower

ICAR’s guidelines stipulated that every KVK should have staff strength of 16 officials (one Programme Coordinator, six scientists, three technical, two administrative and four supporting staff) in the prescribed pay scales. The host institute of KVK was required to obtain the prior approval of ICAR in case of payment of higher pay to its staff and deployment of excess staff and staff on contractual basis or on consolidated salary. Further, ICAR revised these conditions in January 2005 according to which no pay higher than that prescribed for KVK scheme was admissible. It also stated that payment of any incentive or ad-hoc increase in pay over and above the approved scales was to be borne by KVKs from their own resources.

In this regard, scrutiny of related records revealed that:

(a) Inadmissible expenditure on pay and allowances

83 KVKs in eight zones made higher payment of salary and allowances to their officials against the prescribed pay scales without prior approval of ICAR and in violation of the subsequent clarification made by ICAR as given below:

TABLE II		
Designation	Prescribed pay scale by ICAR	Actual pay scale offered by host institutes
Programme Coordinator	Rs.12,000-18,300	Rs.16,400-22,400
Training Associate	Rs.8,800-13,500	Rs.12,800-18,300
Farm Manager, Office Supdt-Cum-Accountant	Rs.5,500-9,000	Rs.5,800-9,200
Jr. Steno-Cum-Computer Operator	Rs.4,000-6,000	Rs.5,800-9,200
Driver-Cum-Mechanic	Rs.2,550-3,200	Rs.3,330-6,200

This resulted in KVKs incurring an inadmissible expenditure of Rs.3.82 crore during the X plan.

While ICAR accepted the facts in respect of Zone III in January 2008 and assured that excess payment of salary would be regularised as per ICAR’s norms, it contested the same observation in respect of Zone I. However, the reply needs to

be viewed in the light of the further clarification given by ICAR in January 2005 as stated above.

(b) Non-adjustment of excess staff of KVKs

- In the 17th Expenditure Finance Committee (EFC) meeting of DARE and ICAR held in February 2001, it was unanimously decided that the excess posts (beyond 16 posts) in the existing KVKs would be surrendered to ICAR as and when they fall vacant. It also stated that 355 excess staff in existing KVKs would be re-deployed in new KVKs against the requirement of 901 posts.

Audit observed that in 41 KVKs (22.77 per cent), 94 staff was in excess of approved sanctioned strength resulting in an excess expenditure of Rs.1.88 crore during the X plan. Although new KVKs were established under the same host institutes during the X plan, excess staff was not re-deployed. Further, ICAR did not have any information on re-deployment of 355 excess staff as of January 2008.

- As per an order issued by ICAR in September 1997, KVKs were not allowed to fill up the posts vacated by any incumbent due to transfer/promotion/retirement, if the total staff strength exceeded 16. Consequently, when the number of scientists was below the sanctioned strength of six, KVKs were unable to fill up the vacancies as the total staff strength of the KVK was 16 or more. As a result, KVK, Guntur (Andhra Pradesh) had only three scientists and it could not fill up these important posts as the total staff strength was more than 16. This affected the technical activities in the respective discipline/subject of the KVK.

Thus, 123 KVKs incurred an inadmissible expenditure of Rs.5.70 crore as a result of payment of salaries in higher pay scales and deployment of excess staff.

Recommendation

ICAR should develop appropriate mechanism to ensure that expenditure on pay and allowances of KVK staff are as per ICAR guidelines. Excess staff should also be re-deployed wherever possible.

3.6.2.5 Administrative and Financial Irregularities

Audit observed that:

- (a) ICAR did not issue any guidelines relating to maintenance of accounts and financial transactions, procurement of stores and construction of works to be followed by the NGO KVKs.

In the absence of this, it was noticed that three NGO KVKs namely Solapur, Buldana and Nanded in Maharashtra made payment ranging from Rs.0.20 lakh to Rs.2.93 lakh in cash, to different parties in violation of Income Tax Act/Rules. Similarly, KVK, Jamui (Bihar) made cash payments of Rs.0.89 lakh to Rs.2.50 lakh on different occasions during the X plan. Further, KVK, Hingoli (Maharashtra) made payment of Rs.62.93 lakh to various parties/contractors without adequate verification of work done by the contractors.

Thus, lack of proper guidelines to NGO KVKs resulted in violation of financial rules of the Government.

ICAR accepted the facts in January 2008 and stated that KVKs were instructed to take corrective actions and follow Income Tax Act/Rules.

(b) The lease deeds of NGO KVKs, Chittoor and Visakhapatnam (Andhra Pradesh) that expired between 1994 and 1999 respectively had not been renewed as of December 2007. Thus, funding of Rs.3.77 crore to these KVKs during the X plan was improper.

ICAR stated in January 2008 that KVKs had been instructed to renew the lease deeds.

(c) Each KVK was required to open a separate bank account wherein entire grants-in-aid received from ICAR would be deposited and withdrawn for expenditure of KVK activities. Further, interest earned if any, out of ICAR fund was to be treated as part of ICAR grants and accordingly was to be adjusted by ICAR in subsequent grants. However, in this regard, Audit observed that:

- In Zone II, a total 'Non-recurring Grant' of Rs.11.42 crore released by ICAR during the X plan for construction activities of 11 KVKs was retained by SAUs¹⁰ (host institutes). Similarly, Sardar Vallabh Bhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh did not release Rs.1.25 crore to 12 KVKs. Instead, it invested the funds in short term deposit in different banks on different occasions between March 2006 and December 2006 and earned interest of Rs.3.70 lakh, which was not adjusted by ICAR as yet.
- Nine KVKs under the jurisdiction of Chandra Shekhar Azad University of Agriculture and Technology, Kanpur and Sardar Vallabh Bhai Patel University of Agriculture and Technology, Meerut (Uttar Pradesh) did not maintain a separate account for the revolving fund received from ICAR and the same was being maintained by the universities. As a result, the KVKs were not getting funds in time to carry out their farm activities. Similarly,

¹⁰ Rajendra Agricultural University (Bihar) and Birsa Agricultural University (Jharkhand).

revolving fund of KVK, Gwalior (Madhya Pradesh) was being maintained by its host institute, College of Agriculture, Gwalior. This defeated the purpose of providing revolving funds to KVKs.

The reply of ICAR of January 2008 that the revolving fund account of eight KVKs under SAU, Meerut was maintained at the KVKs was in contradiction to the reply of the Zonal Coordinator in October 2007.

(d) ICAR released Rs.58.08 lakh in excess to KVK, Mau (Uttar Pradesh) in 1995 for construction of infrastructural facilities, which remained blocked with the KVK upto November 2007. However, at the instance of Audit, ICAR recovered the excess amount of Rs.58.08 lakh from KVK, Mau in December 2007.

Recommendation

ICAR should formulate guidelines in respect of administrative and financial procedures for NGO KVKs.

3.6.2.6 Coordination and monitoring of extension activities

(a) Monitoring at ICAR level

Coordination and monitoring functions of KVKs at national level was done by the Deputy Director General (Agricultural Extension) through organisation of national workshops, frequent meetings of the Zonal Coordinators and inspection of the project centres, Regional Committee meetings of eight agro-climatic regions and QRT. Audit observed that:

▪ **Regional Committee Meetings**

Eight Regional Committees constituted by ICAR were required to meet every year to review the agricultural scenario and offer recommendations for further improvement of the respective region. However, against the total mandatory 40 meetings of eight Regional Committees required to be held during the X plan, only 16 meetings (40 per cent) were held, depriving the region of valuable advice of the committees.

The reply of ICAR of January 2008 that periodicity of the Regional Committee meetings was biennial and accordingly 16 meetings were conducted in eight regions during the X plan, was not tenable as in terms guidelines of ICAR, each Regional Committee was required to meet every year.

▪ **National/ Zonal workshops**

National/ Zonal workshops were required to be conducted for reviewing zone-wise activities. ICAR was required to monitor, in the subsequent workshops/

meetings, the follow up action on recommendations made in the meetings. However, it was observed that ICAR did not monitor the action taken, if any, by KVKs on the recommendations/ suggestions of the monitoring bodies. Consequently, the same recommendations like more OFTs should be undertaken by the KVKs, newly released crop varieties/ technologies should be demonstrated under FLDs and impact assessment of OFTs/ FLDs should be conducted, made in the national/ zonal workshops were being repeated time and again.

ICAR stated in January 2008 that the relevant communication of various conferences/ seminar/ symposia and meetings had been communicated to the ZCUs. The reply is not tenable as the follow up action was not discussed in subsequent meetings, thereby negating the effect of recommendations.

(b) Monitoring at Zonal Coordinating Unit level

At the zonal level, monitoring was done by Zonal Coordinators through inspection, visits and annual zonal workshops. Audit observed that:

(i) The Annual progress reports of all the zones revealed that only the activities of KVKs carried out in the particular year were reported. They did not have any record of the work done by ZCUs. Consequently, monitoring and inspection activities conducted by ZCUs and observations/ recommendations/ suggestions offered by them and action taken thereto by KVKs could not be verified in audit.

ICAR accepted the facts and stated in January 2008 that although discussions were held on recommendations made by the monitoring committees in their previous meetings, the same were not recorded in the proceedings. However, ICAR did not indicate any future course of action to be taken for proper documentation of the action taken report.

(ii) Successful completion of all activities envisaged in the Action Plan within the specified calendar year could not be vouchsafed in Audit as the periods observed for target and achievement of KVKs was different. While the Annual Action Plans of KVKs were prepared for each calendar year, the Annual Progress Reports were prepared for the period from September to October for each year. As a result, the achievement of the activities reported in the Annual Progress reports was not with reference to the Annual Action Plans of KVKs. Thus, it was not clear as to how ZCUs ascertained that all the envisaged activities in the Action Plan were carried out successfully.

(c) Monitoring at Krishi Vigyan Kendra level

At the KVK level, activities were to be monitored by a Scientific Advisory Committee (SAC) which was required to meet twice a year. In terms of guidelines of ICAR and MoU signed between host institute and ICAR, each KVK was

required to constitute its SAC consisting of mandatory members and get approval of ICAR. In this regard, Audit observed that:

- No document was available with the KVKs to establish that SAC was constituted and approved by ICAR. Moreover, the required quorum of minimum 50 per cent of mandatory members was not met in any of the SAC meetings.

ICAR accepted the facts in January 2008 and assured that all KVKs had been instructed to ensure the participation of mandatory members.

- 11 KVKs (6 per cent) did not conduct any SAC meeting during the X plan. 149 KVKs (83 per cent) conducted their SAC meetings intermittently with a shortfall ranging from 16 per cent to 90 per cent.

ICAR stated in January 2008 that all KVKs had been instructed to organise SAC meetings as per norms.

- Proceedings of SAC meetings of KVKs held during the X plan did not reveal whether SACs performed their mandatory functions like (i) consideration of the annual and five years plan (ii) approval of annual accounts before same was sent to the Chartered Accountant/ Statutory Auditor for audit (iii) adoption of the statement of Audited Accounts before the same was sent to the Council (iv) approval of the recommendations of the Recruitment/ Selection committee for appointment of staff on vacant posts in KVKs. This indicated improper monitoring of KVKs by SACs.

Thus, the coordination and monitoring of extension activities of KVKs were inadequate and ineffective and needed strengthening at the KVK level, ZCU level and level of ICAR Headquarters.

ICAR accepted the facts in January 2008 and noted the same for future compliance. ICAR also assured that the coordination and monitoring of KVKs would be strengthened in the XI plan.

Recommendation

ICAR should strengthen the monitoring and evaluating mechanism of KVKs and other extension activities at Headquarters, Zonal and KVK level to ensure effective implementation of their activities.

3.6.2.7 Strengthening of Directorate of Extension Education of State Agricultural University and Zonal Coordinating Units of ICAR

ICAR sanctioned Rs.4.51 crore in December 1999 to 29 Directorates of Extension Education (DEE) of SAUs and eight ZCUs for acquiring advanced infrastructure and strengthening of the units. As per terms of the sanction order of the scheme, ZCUs/ DEEs were required to submit half yearly/ annual progress reports on the physical, financial and technical progress of the scheme to AED for compilation

and submission to the project implementation and monitoring unit of ICAR. Based on the assessment of progress of the scheme, AED was to further recommend subsequent release of funds to ZCUs/ DEEs.

Audit observed that AED released Rs.3.37 crore to DEEs/ZCUs between 1999-2000 to 2002-03. However, though no periodical progress reports were prepared and submitted to AED, it released subsequent funds without assessing and monitoring the progress of the scheme in DEEs/ZCUs. Thus, the achievement of objectives of the scheme could not be ascertained despite an expenditure of Rs.2.74 crore.

ICAR stated in January 2008 that DEEs/ ZCUs were strengthened with advanced communication, office automation system including renovation of infrastructure apart from organising workshop and training programmes. However, in the absence of any progress reports, the reply of ICAR was not verifiable.

3.6.2.8 Agricultural Technology Information Centres

The mandate and functions of Agricultural Technology Information Centres (ATICs) were to provide a single-window supporting delivery system for agricultural products and services like sale of farm implements, bio-fertilisers, soil and water testing, seed quality testing, sale of nursery plants to the farmers, to facilitate direct access of farmers to technology advice and other services and to provide mechanism for feedback from the users to the Institute. Audit examined 13 ATICs in detail and observed the following:

- 10 ATICs¹¹ refunded Rs.66.34 lakh (15.35 *per cent*) out of Rs.4.32 crore received from ICAR which indicated that ATICs did not utilise the money for their planned activities.
- Important activities like sale of farm implements (six ATICs¹²), Bio-fertilisers (seven ATICs¹³), soil and water testing, seed quality testing (four ATICs¹⁴) and sale of nursery plants (two ATICs¹⁵) were not rendered during the X plan. ATIC Haryana Agricultural University (HAU), Hissar directed farmers to the concerned laboratories of the university to avail of the required

¹¹ ATICs namely Chandra Shekhar Azad University of Agriculture and Technology, Kanpur, Central Institute for Cotton Research, Nagpur; Central Arid Zone Research Institute, Jodhpur; Punjab Agricultural University, Ludhiana; Indian Agricultural Research Institute, New Delhi; National Dairy Research Institute, Karnal; YSPUHF, Solan; ICAR Research Complex for NEH Region, Barapani, Sher-e-Kashmir University of Agricultural Sciences and Technology, Srinagar, Central Institute of Freshwater Aquaculture, Bhubneswar, Orissa.

¹² Shimla, Solan, Jabalpur, Kanpur, Nagpur, Jodhpur.

¹³ Ludhiana, Jabalpur, Srinagar, Shimla, Karnal, Nagpur, Jodhpur.

¹⁴ Solan, Ludhiana, Srinagar, Hissar.

¹⁵ Ludhiana, Jabalpur.

services thus, defeating the purpose of establishment of the ATIC constructed at a cost of Rs.25.38 lakh.

- In three ATICs¹⁶, visits of farmers have decreased by 50 per cent. Two ATICs¹⁷ did not document and take follow up action on the feedback received from farmers.

The reply of ICAR of January 2008 that ATIC, HAU, Hissar rendered services to the farmers was not tenable since ZCU had already stated in July 2007 that the farmers were being directed to respective laboratories of University to avail services. In respect of other ATICs, it accepted the facts.

Thus, ATICs did not serve fully as a single-window supporting delivery system for technology products, diagnostic services and information for farmers and other end users, resulting in expenditure of Rs.3.95 crore not being largely fruitful.

Recommendation

ICAR should ensure better functioning of ATICs to provide services to farmers and other end users through a single-window supporting delivery system.

3.6.3 National Research Centre for Women in Agriculture, Bhubaneswar

National Research Centre for Women in Agriculture (NRCWA) was established in April 1996 at Bhubaneswar, Orissa with the objective of identifying gender issues and reducing the drudgery of farm women and uplifting their social empowerment. NRCWA is headed by a Director, who is assisted by 12 scientists and seven staff each in technical and administration respectively, against the strength of 16, seven and nine respectively. NRCWA had a total budget allocation of Rs.10.67 crore during 2002-03 to 2006-07. Test check of records of NRCWA revealed the following:

3.6.3.1 Non-implementation of envisaged plan activities

NRCWA identified 10 activities for implementation during the X plan in order to find solutions for gender issues, reducing drudgery of farm women and their social empowerment. However, it was observed that NRCWA could undertake only three activities¹⁸, that too limited to in and around Orissa.

¹⁶ Kanpur, Nagpur, Barapani.

¹⁷ Kanpur, Jodhpur.

¹⁸ (1) development of awareness generation and training tools for gender mainstreaming including gender sensitive indicators to assess progress in each of these areas, (2) developing trainers' training modules and materials for technology transfer and (3) to study the potential of Self Help Groups as tool for sustainable livelihood of farm women.

NRCWA stated in July 2007 that the shortfall in different areas and non-undertaking of activities outside Orissa were due to acute shortage of staff and inadequate infrastructure facilities in the beginning of the X plan. However, NRCWA assured that more collaborative projects would be planned in future.

In contradiction to the reply given by NRCWA in July 2007, ICAR stated in January 2008 that appropriate activities covering all the identified thrust areas for the X plan were undertaken by NRCWA. This needs to be viewed in light of the fact that ICAR did not furnish any details for being satisfied with the performance of NRCWA, especially when the audit observations were agreed to by the Director, NRCWA.

3.6.3.2 Non-creation of database

Creation of a database on gender specific information about men's and women's role in food production and agriculture development for effecting technologies, programmes and policies was one of the main objectives of NRCWA. In this regard, NRCWA was required to collect state-wise information/ data on gender issues in a phased manner from the whole country. This primary information was to be further analysed, validated and fed into the databank which could be used as a resource inventory to enable the researchers, policy makers and other stakeholders to utilise them for planning/ research on gender issues.

Audit observed that no database structure had been developed as of December 2007. No target was fixed for collection of state-wise data to cover the whole country in a phased manner. However, NRCWA collected and analysed data relating to gender issues for different major farming systems from only three states viz. Orissa, Haryana and Kerala. Thus, one of the primary objectives of creation of databank for utilisation of researchers and policy makers for planning gender issues remained unachieved.

NRCWA, while accepting the facts, stated in July 2007 that due to non-availability of trained technical staff to plan and manage the database, the objective could not be achieved and assured that efforts would be made to fulfill the target in the XI plan. The reply indicates that NRCWA did not take any action to either train its existing staff suitably or outsource this skill, even after completion of one decade of its establishment.

ICAR accepted the facts in January 2008 and assured that the data collected so far would be utilised in creation of database.

3.6.3.3 Research projects analysis

NRCWA implemented 41 research projects during the X plan, of which 13 continued from prior to 2002-03. Out of 26 completed projects, Audit selected 17

projects¹⁹ on the basis of their monetary value and significance of their thrust area of research, development and extension activities. The total cost of the 17 selected projects was Rs.8.08 crore.

Audit scrutiny of the projects revealed that though these 17 projects were treated as complete, the following deficiencies were observed in these projects:

- Partial/ Non-achievement of objectives in 11 Projects (Rs.6.33 crore)
- Mid-way termination of two projects (Rs.0.50 crore)
- Non-utilisation of the results of research in one project (Rs.0.28 crore)
- Improper impact assessment and follow-up action in three projects (Rs.0.97 crore)

As a result, NRCWA was yet to effectively identify hazards in agriculture operations for women, develop need based drudgery reducing technologies in agriculture, increase productivity for farm women and formulate policies for women in agriculture.

3.6.3.4 Inadequate monitoring and non-implementation of recommendations of monitoring bodies

In terms of bye-laws of ICAR, research project proposals are required to be scrutinised and approved by Staff Research Council (SRC), which meets two times in a year. It also reviews the annual progress of each project. Research Advisory Committee (RAC), which meets annually, evaluates the research findings in the final project reports.

It was, however, observed that while RAC met according to its norm, SRC met only five times (50 per cent) as against the mandatory 10 times during the X plan. NRCWA accepted the findings (July 2007) and stated that action would be taken in future on the recommendations.

ICAR accepted in January 2008 and assured that SRC meetings would be held twice in a year as per their guidelines.

3.6.3.5 Inadequate system of appraisal for publication of research papers

NRCWA was required to develop and publish gender related material and create network linkages through journals for information sharing as per its objectives. Audit observed that NRCWA did not have any measurable targets for the number of research papers to be published by scientists for projects undertaken. NRCWA published 50 research papers during the X plan. Out of 14 scientists, while three scientists published no research paper, two scientists published only one research

¹⁹ 14 in-house (including two mid way terminated), one collaborative, one AP Cess Funded and one externally aided project.

paper each. One scientist however, published 14 research papers. Although the average number of projects with each scientist was seven during the X plan, they did not contribute research papers commensurately.

Further, peer review system of research papers which is an independent scrutiny of scientific research papers by other qualified scientists experts (peers) before they are made public, was not found on record in NRCWA. Thus, a system of monitoring of publishing of research papers was not in existence in NRCWA.

ICAR stated in January 2008 that the number of publications brought out by a scientist depend upon the nature of research and time required to achieve the objectives. It added that generally peer review of research papers was carried by the publishers of journal. The reply is not tenable as peer review of research papers was not done by other qualified experts.

3.6.3.6 Technology development and transfer

NRCWA was required to develop gender sensitive modules and methodologies for transfer of technology for reduction of workload and increasing efficiency of farm women as per its objectives. It developed 11 technologies at a cost of Rs.1.55 crore since its inception, to March 2007. While most of the technologies developed were related to weed management, only one technology, a rice farming equipment, which was still under evaluation, was developed for reducing drudgery of farm women,

Audit observed that none of these technologies developed by NRCWA was transferred as of July 2007. However, it transferred technologies developed by other institutes through a project during the X plan.

Thus, despite an expenditure of Rs.1.55 crore, the envisaged objective of technology transfer could not be achieved. Moreover, NRCWA developed only one technology for drudgery reduction of farm women. In reply, NRCWA stated in July 2007 that all the 11 technologies were under trial and agreed that it did not transfer the developed technologies.

ICAR accepted the facts in January 2008 and stated that these technologies were under trials.

3.6.3.7 Inadequate linkages with other organisations

One of the objectives of NRCWA was to collaborate with national and international organisations like ICAR institutes, State Agricultural Universities, NGOs and KVKs, Food & Agriculture Organisation, for testing the appropriateness of farm technologies programmes, and policies in terms of gender sensitivity and to suggest suitable modifications.

Audit observed that while NRCWA undertook projects with ICAR institutes and SAUs, it did not undertake any collaborative/integrated programme with institutions like KVKs, NGOs and international agencies during the period. Thus, NRCWA could not achieve the objective of testing the appropriateness of farm technologies programmes and policies in terms of gender sensitivity.

While accepting the facts, NRCWA stated in July 2007 that due to non-availability of technical manpower and pre-occupation of scientists in infrastructure development and administrative work, not much collaborative work was undertaken with KVKs, NGOs and international agencies.

ICAR stated in January 2008 that more collaborative programmes with national organisations were envisaged in the XI plan and accordingly, action had been initiated.

Recommendation

ICAR should strengthen the functioning of NRCWA to conduct research, develop and transfer technologies for women in agriculture at a national level. Coordination with national and international organisations should also be ensured for testing appropriateness of technology for women in agriculture.

3.6.4 Agricultural Produce Cess Fund Projects

During the X plan, six schemes funded from AP Cess Fund²⁰ were completed at a cost of Rs.79.82 lakh. All the schemes were scrutinised and it was observed that while results were obtained in five schemes, periodical reports and the final report were not prepared in one scheme and, therefore, the status of the project could not be ascertained in audit.

Audit observed that the results of the projects like developing training modules for imparting trainings, farmer to farmer communication systems for agricultural development, analysing the problems of entrepreneurial goals etc, were achieved in five projects. However, the outcome of these schemes was not compiled in the form of guidelines or instructions and circulated to all KVKs and ZCUs for utilisation of the results, particularly for training the extension functionaries. No follow up action was taken for utilising the significant scientific results and practical value of these schemes in the extension activities of ICAR. As a result, the aim of the schemes which was to resolve identified gaps limiting production in agriculture and allied areas was not achieved, despite of an expenditure of Rs.79.82 lakh.

²⁰ Agricultural Produce Cess Fund is a grant from Government of India to ICAR for funding of ad-hoc schemes.

ICAR accepted the facts in January 2008 and stated that the outcome of the schemes would be compiled in the form of guidelines/ instructions and be circulated to all ZCUs and KVKs for utilisation. With regard to the project 'Technology evaluation and impact assessment', ICAR stated that several varieties of crops were evaluated during 2001-02 and 2002-03. However, the reply was silent on the achievement of objectives of obtaining a feedback of farmers for refinement and final testing of the technologies.

3.6.5 Technology Assessment and Refinement through Institute-Village Linkage Programme

70 Institute Village Linkage Programmes (IVLPs) were implemented under the National Agricultural Technology Project in various SAUs and ICAR institutes. The scheme was intended to identify and resolve the problems through relevant technological interventions of farmers in a village or cluster of villages. Overall monitoring of the schemes was to be done by AED, ICAR. The schemes covered different agro-ecosystems like coastal, hill and mountain, arid and major production systems. Out of the records of 21 schemes called for by Audit, the records of only seven schemes were provided. Total cost of the seven schemes was Rs.1.92 crore. Scrutiny revealed the following:

- (a) IVLP centres conducted survey of the areas and identified the technological gaps/ problems of the farming systems. However, they did not assess the details of appropriate technologies in the programme of coastal agro-ecosystem to overcome each identified technological gap/ problem, which was the basic objective of the programme. In the absence of this, refinement of technology was not possible.
- (b) IVLP centres did not conduct most of the activities on the identified gaps/problems. Similarly, they did not impart adequate training to farmers on the identified topics/issues.
- (c) Impact assessment of technology demonstration for further refinement, wherever required, was not conducted in the programmes.
- (d) Important objectives like studying the methods of on-farm value addition of agricultural products, by-products and wastes for greater economic dividends to farmers could not be achieved.

Thus, the objectives were not achieved as IVLP centres did not adequately and effectively conduct activities on identified problems of the selected farming systems, despite an expenditure of Rs.1.92 crore.

Recommendation

ICAR should ensure achievement of objectives and utilisation of the results appropriately for extension related schemes undertaken for various Ministries/ Departments.

3.7 Conclusion

Basic eligibility criteria such as proper site selection, minimum requirement of cultivable land, mortgage of land were not followed in establishment of KVKs. Delay in development, non utilisation and misutilisation of infrastructural facilities in KVKs were observed. Inadequate training courses were being conducted for practising farmers, rural youth and extension functionaries. Only 0.34 *per cent* of the total rural youth trained were able to gain self employment.

Results of the frontline demonstrations being conducted by KVKs revealed that the demonstrated practices were not cost effective for adoption by farmers. Though required to demonstrate newly released crop varieties, KVKs were still demonstrating considerably older crop varieties as a result of which the latest crop varieties and technologies did not reach the farmers' fields.

Further, monitoring, evaluation and overall management of KVKs was inadequate and needed to be strengthened. ATICs were not fully successful in providing a single-window supporting delivery system for the availability of technology products, diagnostic services and technology information to the farmers and other end users.

NRCWA conducted only three of the 10 mandated activities as envisaged in the X plan. It was yet to develop a database on gender specific information which was to serve as a resource inventory for researchers and policy makers. Though NRCWA developed 11 technologies since inception in 1996, none of them could be transferred to the end users. There was partial/non-achievement of objectives in 65 *per cent* of the completed projects. Contribution of research papers and publications was not commensurate with the number of projects undertaken by the scientists.

The overall aim of utilising the results of AP cess fund schemes for extension activities was yet to be achieved. Institute Village Linkage Programmes did not adequately address the identified problems of farming systems.

Thus, the Agricultural Extension schemes of ICAR needs to be further strengthened in the fields of planning, implementation, reporting, monitoring, impact assessment and evaluation to ensure better adoption level of agricultural technologies and enhancement of productivity of the farming communities.

New Delhi
Dated:

(RAJ G. VISWANATHAN)
Principal Director of Audit,
Scientific Departments

Countersigned

New Delhi
Dated:

(VINOD RAI)
Comptroller and Auditor General of India

ANNEXURE –1
(Referred to in para 3.2)

LIST OF THE SELECTED KRISHI VIGYAN KENDRAS

Sl. No.	Zone	Name of the KVK	Host Institute	Year of Estt.
1.	I	KVK, Bhatinda	SAU	1992
2.	I	KVK, Faridabad	SAU	1992
3.	I	KVK, Faridkot	SAU	1995
4.	I	KVK, Ferozpur	SAU	1990
5.	I	KVK, Gurgaon	ICAR	1984
6.	I	KVK, Kangra	SAU	2000
7.	I	KVK, Kapurthala	SAU	1991
8.	I	KVK, Karnal	ICAR	1976
9.	I	KVK, Kullu	SAU	1985
10.	I	KVK, Kurukshetra	SAU	1993
11.	I	KVK, Nawansahar	SAU	1995
12.	I	KVK, Panipat	SAU	1994
13.	I	KVK, Rewari	NGO	1984
14.	I	KVK, Ropar	SAU	2005
15.	I	KVK, Sangrur	SAU	1995
16.	I	KVK, Shimla	SAU	1995
17.	I	KVK, Solan	SAU	2004
18.	I	KVK, Sonipat	SAU	1992
19.	I	KVK, Ujwa	PSU	1995
20.	II	KVK, Kaimur	NGO	1992
21.	II	KVK, Bokaro	SAU	2004
22.	II	KVK, Bardhaman	ICAR	2005
23.	II	KVK, Chatra	SAU	2004
24.	II	KVK, Deoghar	NGO	1985
25.	II	KVK, Dhanbad	SAU	2005
26.	II	KVK, East Singhbhum	SAU	2004
27.	II	KVK, Gumla	NGO	2004
28.	II	KVK, Hazaribagh	NGO	1984
29.	II	KVK, Jamui	NGO	1994
30.	II	KVK, Darjeeling	SAU	1992
31.	II	KVK, Khagaria	NGO	2004
32.	II	KVK, Lohardanga	SAU	2004
33.	II	KVK, Malda	SAU	2004
34.	II	KVK, Munger	SAU	1979
35.	II	KVK, Nalanda	SAU	1992
36.	II	KVK, Nawadah	NGO	1979
37.	II	KVK, Palamau	SAU	2004
38.	II	KVK, Birbhum	CU	1994
39.	II	KVK, Uttar Dinajpur	SAU	2005
40.	II	KVK, Vaisali	SAU	1997
41.	II	KVK, West Singhbhum	SAU	1983
42.	III	KVK, Aizwal	CAU	2005

Sl. No.	Zone	Name of the KVK	Host Institute	Year of Estt.
43.	III	KVK, Bishnupur	NGO	2003
44.	III	KVK, Dibrugarh	SAU	2006
45.	III	KVK, Dimapur	ICAR	1979
46.	III	KVK, East Kameng	SG	2006
47.	III	KVK, East Sikkim	ICAR	1982
48.	III	KVK, Imphal East	CAU	2005
49.	III	KVK, Imphal West	ICAR	1980
50.	III	KVK, Kohima	SG	2005
51.	III	KVK, Kolasib	SG	1977
52.	III	KVK, Lawngtlai	SG	2005
53.	III	KVK, Nagaon	SAU	2004
54.	III	KVK, North Sikkim	SG	2004
55.	III	KVK, Senapati	NGO	2002
56.	III	KVK, Sivasagar	SAU	2003
57.	III	KVK, Sonitpur	SAU	1981
58.	III	KVK, South Tripura	ICAR	1984
59.	III	KVK, Tirap	SG	2004
60.	III	KVK, West Sikkim	SG	2005
61.	III	KVK, West Tripura	NGO	1979
62.	III	KVK, Wokha	ICAR	2006
63.	IV	KVK, Agra	DU	2002
64.	IV	KVK, Aligarh	SAU	1992
65.	IV	KVK, Allahabad	DU	1994
66.	IV	KVK, Baghpat	SAU	2004
67.	IV	KVK, Barabanki	SAU	2004
68.	IV	KVK, Bareilly	ICAR	1985
69.	IV	KVK, Bulandshahar	NGO	2004
70.	IV	KVK, Chitrakoot	NGO	1992
71.	IV	KVK, Dehradun	SAU	2004
72.	IV	KVK, Gautam Budha Nagar	SAU	2005
73.	IV	KVK, Gazipur	NGO	2001
74.	IV	KVK, Ghaziabad	SAU	1992
75.	IV	KVK, Gonda	NGO	1989
76.	IV	KVK, Haridwar	SAU	2004
77.	IV	KVK, Kaushambi	NGO	2006
78.	IV	KVK, Lucknow	SAU	1999
79.	IV	KVK, Mathura	SAU	1984
80.	IV	KVK, Meerut	SAU	1991
81.	IV	KVK, Mirzapur	CU	1984
82.	IV	KVK, Moradabad	SAU	2004
83.	IV	KVK, Muzaffarnagar	SAU	1994
84.	IV	KVK, Nainital	SAU	2004
85.	IV	KVK, Pratapgarh	NGO	1999
86.	IV	KVK, Rampur	SAU	1993
87.	IV	KVK, Saharanpur	SAU	1992
88.	IV	KVK, Sitapur	NGO	2005
89.	IV	KVK, Sultanpur	NGO	1976
90.	IV	KVK, Tehri Garhwal	SAU	1984
91.	IV	KVK, Unnao	NGO	1999
92.	IV	KVK, Varanasi	SAU	1989
93.	V	KVK, Amaravathi	NGO	1995

Sl. No.	Zone	Name of the KVK	Host Institute	Year of Estt.
94.	V	KVK, Ahmednagar	NGO	1992
95.	V	KVK, Buldhana	NGO	1994
96.	V	KVK, Chitoor	NGO	1992
97.	V	KVK, Guntur	NGO	1992
98.	V	KVK, Hingoli	NGO	2002
99.	V	KVK, Latur	NGO	2005
100.	V	KVK, Medak	NGO	1991
101.	V	KVK, Mehaboobnagar	NGO	1991
102.	V	KVK, Nalgonda	NGO	1984
103.	V	KVK, Nanded	NGO	1993
104.	V	KVK, Nasik	SAU	1994
105.	V	KVK, Parbhani	NGO	1995
106.	V	KVK, Rangareddy	ICAR	1976
107.	V	KVK, Sangli	NGO	1993
108.	V	KVK, Sindhurg	NGO	1996
109.	V	KVK, Solapur	NGO	1994
110.	V	KVK, Srikakulam	SAU	1984
111.	V	KVK, Visakhapatnam	NGO	1995
112.	V	KVK, Vizianagaram	SAU	1983
113.	V	KVK, Warrangal	SAU	1989
114.	V	KVK, Washim	NGO	1995
115.	VI	KVK, Ahemedabad	SAU	2004
116.	VI	KVK, Ajmer	SAU	1992
117.	VI	KVK, Alwar	SAU	1992
118.	VI	KVK, Anand	SAU	1985
119.	VI	KVK, Bharatpur	SAU	1988
120.	VI	KVK, Gandhinagar	DU	1977
121.	VI	KVK, Jamnagar	SAU	2001
122.	VI	KVK, Jodhpur	ICAR	1983
123.	VI	KVK, Rajkot	SAU	2004
124.	VI	KVK, Sikar	SAU	1976
125.	VI	KVK, Sirohi	SAU	1989
126.	VI	KVK, Surendranagar	SAU	2005
127.	VI	KVK, Tonk	DU	1995
128.	VI	KVK, Udaipur	NGO	1984
129.	VI	KVK, Vadodara	NGO	1995
130.	VII	KVK, Angul	SAU	1995
131.	VII	KVK, Bargarh	SAU	1992
132.	VII	KVK, Betul	SAU	2002
133.	VII	KVK, Bhopal	SAU	1979
134.	VII	KVK, Boudh	SAU	2005
135.	VII	KVK, Chhindwara	SAU	1983
136.	VII	KVK, Cuttack	SAU	1992
137.	VII	KVK, Dewas	SAU	2005
138.	VII	KVK, Dhar	SAU	2002
139.	VII	KVK, Guna	SAU	1994
140.	VII	KVK, Gwalior	SAU	1999
141.	VII	KVK, Indore	NGO	1976
142.	VII	KVK, Jabalpur	SAU	2004
143.	VII	KVK, Jagatsinghpur	SAU	2005
144.	VII	KVK, Jajpur	SAU	2002

Sl. No.	Zone	Name of the KVK	Host Institute	Year of Estt.
145.	VII	KVK, Khandwa	SAU	1994
146.	VII	KVK, Khurda	ICAR	1977
147.	VII	KVK, Nayagarh	SAU	2004
148.	VII	KVK, Nuapara	SAU	2005
149.	VII	KVK, Puri	SAU	2006
150.	VII	KVK, Raigarh	SAU	2004
151.	VII	KVK, Raipur	SAU	2004
152.	VII	KVK, Raisen	NGO	2003
153.	VII	KVK, Rajgarh	SAU	1993
154.	VII	KVK, Ratlam	NGO	1995
155.	VII	KVK, Rewa	SAU	2004
156.	VII	KVK, Satna	NGO	1993
157.	VII	KVK, Sundergarh	SAU	2004
158.	VII	KVK, Ujjain	SAU	2004
159.	VIII	KVK, Bangalore Rural	SAU	2006
160.	VIII	KVK, Bellary	SAU	1993
161.	VIII	KVK, Calicut	ICAR	1992
162.	VIII	KVK, Chitradurg	SAU	1999
163.	VIII	KVK, Coimbatore	NGO	1979
164.	VIII	KVK, Dharwad	SAU	2004
165.	VIII	KVK, Theni	NGO	1995
166.	VIII	KVK, Kanyakumari	SAU	2004
167.	VIII	KVK, Karur	NGO	2005
168.	VIII	KVK, Kolar	SAU	2006
169.	VIII	KVK, Mysore	NGO	1994
170.	VIII	KVK, Nilgiri	NGO	1983
171.	VIII	KVK, Palghat	SAU	1982
172.	VIII	KVK, Pathanamthitta	NGO	1994
173.	VIII	KVK, Perambalur	NGO	2002
174.	VIII	KVK, Puducherry	NGO	1974
175.	VIII	KVK, Salem	SAU	1994
176.	VIII	KVK, South Goa	SG	2007
177.	VIII	KVK, Thiruvananthapuram	NGO	1979
178.	VIII	KVK, Thrissur	SAU	2004
179.	VIII	KVK, Tirunelveli	NGO	1994
180.	VIII	KVK, Trichy	SAU	1997

ZONE-WISE DETAILS OF 180 SELECTED KRISHI VIGYAN KENDRAS

Zone I	Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII	Zone VIII	Total
19	22	21	30	22	15	29	22	180

HOST INSTITUTE WISE DETAILS OF 180 SELECTED KRISHI VIGYAN KENDRAS

Central Agriculture University (CAU)	2	Non-governmental Organisation (NGO)	53	
Central University (CU)	2		State Agriculture University (SAU)	97
Deemed University (DU)	4		Public Sector Undertaking (PSU)	1
Indian Council of Agricultural Research (ICAR)	13		State Government (SG)	8
Total	21		Total	159

GRAND TOTAL : 180

LIST OF SELECTED AGRICULTURAL TECHNOLOGY INFORMATION CENTRES

Sl. No.	Zone	Name of the ATIC
1.	I	ATIC, Punjab Agricultural University, Ludhiana, Punjab
2.	I	ATIC, Indian Agricultural Research Institute, New Delhi
3.	I	ATIC, National Dairy Research Institute, Karnal, Haryana
4.	I	ATIC, Dr. Y.S. Parmar University of Horticulture and Forestry, Solan, Himachal Pradesh
5.	I	ATIC, Sher-e-Kashmir University of Agricultural Sciences and Technology, Srinagar, Jammu and Kashmir
6.	I	ATIC, Central Potato Research Institute, Shimla, Himachal Pradesh
7.	I	ATIC, Choudhary Charan Singh Haryana Agricultural University, Hissar, Haryana
8.	III	ATIC, ICAR Research Complex for NEH Region, Barapani, Meghalaya
9.	IV	ATIC, Chandra Shekhar Azad University of Agriculture and Technology, Kanpur, Uttar Pradesh
10.	V	ATIC, Central Institute for Cotton Research, Nagpur, Maharashtra
11.	VI	ATIC, Central Arid Zone Research Institute, Jodhpur, Rajasthan
12.	VII	ATIC, Jawaharlal Nehru Krishi Viswavidyala, Jabalpur, Madhya Pradesh
13.	VII	ATIC, Central Institute of Freshwater Aquaculture, Bhubneswar, Orissa.

LIST OF SELECTED INSTITUTE-VILLAGE LINKAGE PROGRAMMES

Sl. No.	Details of the programme	Lead Centre
1.	Technology Assessment and Refinement through IVLP in Coastal zone of Kerala	Central Plantation Crops Research Institute, Kasaragod, Kerala
2.	Technology Assessment and Refinement through IVLP in North-eastern zone of Tamil Nadu	Tamil Nadu University of Veterinary and Animal Science, Kattupakkam
3.	Technology Assessment and Refinement through IVLP	West Bengal University of Animal and Fisheries Sciences, Midnapore, West Bengal
4.	Technology Assessment and Refinement through IVLP	Central Institute of Brackish-water Aquaculture, Chennai
5.	Technology Assessment and Refinement through IVLP in Sundarbans of West Bengal	Central Soil Salinity Research Institute, Canning Town, Sunderbans district, West Bengal
6.	Technology Assessment and Refinement through IVLP in Jodhpur district of Rajasthan	Central Arid Zone Research Institute, Jodhpur, Rajasthan
7.	Technology Assessment and Refinement through IVLP in Utranchal	Central Soil and Water Conservation Research and Training Institute, Dehradun, Utranchal
8.	Technology Assessment and Refinement through	Central Tuber Crops Research

Sl. No.	Details of the programme	Lead Centre
	IVLP in Southern zone of Trivandrum	Institute, Trivendrum, Kerala
9.	Technology Assessment and Refinement through IVLP	Central Agricultural Research Institute, Port Blair
10.	Technology Assessment and Refinement through IVLP in North East Region of Meghalaya	ICAR, RC, Barapani, Meghalaya
11.	Technology Assessment and Refinement through IVLP in Mid-hill conditions of Himachal Pradesh	HPKV, Palampur, Himachal Pradesh
12.	Technology Assessment and Refinement through IVLP in West Bengal	BCKV, Kalimpong, Darjeeling, West Bengal
13.	Technology Assessment and Refinement through IVLP in NDRI, Karnal, Haryana State	National Dairy Research Institute, Karnal, Haryana
14.	Technology Assessment and Refinement through IVLP in Irrigated Agro-Eco Region	Punjab Agricultural University, Ludhiana, Punjab
15.	Technology Assessment and Refinement through IVLP	ICAR, RC, Patna, Bihar
16.	Technology Assessment and Refinement through IVLP in Ranchi	Birsa Agricultural University, Ranchi, Jharkhand
17.	Technology Assessment and Refinement through IVLP in Eastern dry zone	Indian Institute of Horticultural Research, Bangalore, Karnataka
18.	Technology Assessment and Refinement through IVLP in Hassan, Bangalore	Krishi Vigyan Kendra, Hassan, Karnataka
19.	Technology Assessment and Refinement through IVLP in Coastal/ Ghat zone of Maharashtra	Krishi Vigyan Kendra, Depoli, Maharashtra
20.	Technology Assessment and Refinement through IVLP in Ajmer	Krishi Vigyan Kendra, Tabiji, Ajmer, Rajasthan
21.	Technology Assessment and Refinement through IVLP	Jawaharlal Nehru Krishi Vishwavidhyalaya, Jabalpur, Madhya Pradesh

ANNEXURE –2
(Referred to in para 3.6.2.3 (c)(i))

SHORTFALL IN FLDs ON CROPS OTHER THAN PULSES, OILSEEDS AND COTTON

Sl. No.	Name of KVK	Percentage of shortfall
ZONE- I		
1.	Faridkot	100
2.	Kapurthala	100
3.	Karnal	100
4.	Ujwa (Delhi)	73
5.	Gurgaon	56
6.	Shimla	39
7.	Kurukshetra	30
8.	Rewari	21
ZONE-II		
1.	Munger	97
2.	Nalanda	97
3.	Darjeeling	91
4.	Burdwan	90
5.	East Singhbhum	85
6.	Birbhum	83
7.	Uttar Dinajpur	57
8.	Malda	8
ZONE-III,		
1.	South Tripura	100
2.	Sonitpur	95
3.	East Sikkim	94
4.	Imphal West	69
5.	Dimapur	33
ZONE-IV		
1.	Muradabad	96
2.	Meerut	91
3.	Barabanki	90
4.	Varanasi	84
5.	Gazipur	81
6.	Pratapgarh	78
7.	Mathura	68
8.	Mirzapur	42
ZONE- V		
1.	Latur	100
2.	Warrangal	99
3.	Parbhani	89
4.	Nanded	84

Sl. No.	Name of KVK	Percentage of shortfall
5.	Nasik	84
6.	Sindhudurg	84
7.	Visakhapatnam	81
8.	Vizianagram	81
9.	Hingoli	79
10.	Guntur	75
11.	Nalgonda	75
12.	Washim	58
13.	Chittur	54
14.	Srikakulam	54
15.	Medak	41
16.	Sangli	30
17.	Buldana	9
18.	Solapur	3
ZONE-VI		
1.	Anand	60
2.	Ahmedabad	47
3.	Surendernagar	40
ZONE-VII		
1.	Guna	100
2.	Raipur	96
3.	Betul	90
4.	Gwalior	84
5.	Angul	70
6.	Raisen	68
7.	Sundergarh	52
8.	Dhar	44
9.	Khandwa	26
ZONE-VIII		
1.	Palghat	95
2.	Bellary	92
3.	Calicut	85
4.	Coimbatore	82
5.	Kolar	80
6.	Tirunelveli	79
7.	Kanyakumari	77
8.	Pathanamthitta	77
9.	Bangalore Rural	73
10.	Perambalur	68
11.	Thrissur	57
12.	Trichy	43
13.	Dharwad	40
14.	Salem	32
15.	Puducherry	18
Total: 74 KVKs		Average : 69 per cent